UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/986,043	11/07/2001	Hiroshi Dempo	016872-0171	4799

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EXAMINER
PHUNKULH, BOB A

ART UNIT	PAPER NUMBER
2661	

DATE MAILED: 08/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/986,043	DEMPO, HIROSHI
	Examiner	Art Unit	
	Bob A. Phunkulh	2661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _11/07/2001_.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-51_ is/are pending in the application.

　　4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-4, 7-14, 17-24, 27-29, 31-37, 4043, 46-49_ is/are rejected.

7)☒ Claim(s) _5,6,15,16,25,26,30,38,39,44,45,50 and 51_ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _29 May 2003_ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

　　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

　　Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

　　a)☒ All b)☐ Some * c)☐ None of:

　　　　1.☒ Certified copies of the priority documents have been received.

　　　　2.☐ Certified copies of the priority documents have been received in Application No. _____.

　　　　3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

　　* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _2/20/04; 11/07/01_.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3, 7, 9, 11, 13, 17, 19, 21, 23, 27-29, 32, 34, 36, 40-42, 46-48, are

rejected under 35 U.S.C. 102(e) as being anticipated by *La Porta* et al. (US 6,654,359),

hereinafter *La Porta*.

Regarding claim 1, *La Porta* A mobile network for communication between a

plurality of terminals, comprising:

a first IP (Internet Protocol) node for generating, on receiving an IP packet meant

for a mobile terminal usually connected to the first IP node, but handed over, an

encapsulated IP packet for transferring the IP packet to a destination of the mobile

terminal, and transferring the encapsulated IP packet to the destination via a path

matching with a QoS (Quality of Service) class of the encapsulated IP packet (the home

agent comprises of nodes for receiving IP packet for a MS, and encaplsulating the

packets the destination node i.e. foreign agent via QOS of the packet, see col. 5 lines

18-20, col. 5 lines 46-49, and col. 9 lines 17-21); and

a second IP node for separating, when the mobile terminal is connected to the

second IP node at the destination, the IP packet from the encapsulated IP packet

received from the first IP node and sending the IP packet to the mobile terminal (BS 2 in

foreign agent further forward the encapsulated IP packet it the MS, see col. 5 lines 56 to

col. 6 line 18);

wherein the mobile terminal handed over reports the destination to the first IP

node together with OoS information for setting the QoS class of the encapsulated IP

packet (the mobile station register care-of-address with the home agent, see col. 5 lines

46-49 and col. 9 lines 17-21).

Regarding claim 2, *La Porta* discloses the first IP node generates the

encapsulated IP packets corresponding in number to the plurality of destinations and

sends the encapsulated IP packets to the plurality of destinations (the home agent

maintains a list of mobile device address corresponding to mobile registered with the

home agent, see col. 36 lines 39 to col. 37 line 8).

Regarding claim 3, *La Porta* discloses the first IP node stores destination

information and the QoS information in a form of a table (see col. 6 lines 5-9).

Regarding claim 7, *La Porta* discloses the mobile terminal reports the

destination and the QoS information to the first IP noted by using a packet for

registration (the mobile IP requires registration of the care-of-address with the home

agent, see col. 5 lines 46-49 and col. 9 lines 16-45; and the). In col. 34 lines 42-45, the

home agent is a registered agent for the mobile device, and in col. 35 lines 55-59 the

communication between the home agent and the foreign agent uses ICMP protocol i.e.

control packet. Thus, using the control packet (ICMP protocol) for registration is

inherent feature.

Regarding claim 9, *La Porta* discloses in a mobile network for communication

between a plurality of terminals, an IP node to which a first terminal is usually connected

generates, on receiving a first IP packet meant for the first terminal handed over, a

second IP packet having an IP address of a destination of the first terminal substituted

for an IP address of the first IP packet and sends the second IP packet to the

destination via a path matching with a OoS class of the second IP packet (the home

agent comprises of nodes for receiving IP packet for a MS, and encaplsulating the

packets the destination node i.e. foreign agent via QOS of the packet, see col. 5 lines

18-20, col. 5 lines 46-49, and col. 9 lines 17-21); and

the first terminal reports the destination to at least one of the IP node and a

second terminal sent the first IP packet together with QoS information for setting a QoS

class of the second IP packet (see col. 5 lines 46-49).

Regarding claim 11, *La Porta* discloses the mobile terminal reports the

destination and the QoS information to the first IP noted by using a packet for

registration (the mobile IP requires registration of the care-of-address with the home

agent, see col. 5 lines 46-49 and col. 9 lines 16-45; and the). In col. 34 lines 42-45, the

home agent is a registered agent for the mobile device, and in col. 35 lines 55-59 the

communication between the home agent and the foreign agent uses ICMP protocol i.e.

control packet. Thus, using the control packet (ICMP protocol) for registration is

inherent feature.

Regarding claim 13, *La Porta* discloses IP node and the second terminal each

store the destination information and the QoS information in a form of a table (see col. 6

lines 1-9).

Regarding claim 17, *La Porta* discloses on receiving the destination information

and the QoS information from the first terminal, the second terminal generates the

second IP packet and sends the second IP packet to the first terminal (col. 2 line 61 to

col. 3 line 8).

Regarding claim 19, *La Porta* discloses an IP packet transferring method for

allowing a plurality of terminals to communicate with each other via a mobile network,

the IP packet transferring method comprising the steps of:

causing a first IP node to which a mobile terminal is usually connected to

generate, on receiving an IP packet meant for the mobile terminal handed over, an

encapsulated IP packet for transferring the IP packet to a destination of the terminal

(see col. 5 lines 40-55);

causing the first IP node to transfer the encapsulated IP packet to the destination

via a path matching with a QoS class of the encapsulated IP packet; and causing a

second IP node to which the mobile terminal is connected at the destination to separate

the IP packet from the encapsulated IP packet received from the first IP node and

sending the IP packet to the mobile terminal (see col. 6 lines 40-55; and col. 9 line 16-

20);

wherein the mobile terminal handed over reports the destination to the first IP

node together with QoS information for setting the QoS class of the encapsulated IP

packet (registering by the mobile unit the home agent using care-of-address, col. 5 lines

40-55).

Regarding claim 21, La Porta discloses the mobile terminal reports the

destination and the QoS information to the first IP noted by using a packet for

registration (the mobile IP requires registration of the care-of-address with the home

agent, see col. 5 lines 46-49 and col. 9 lines 16-45; and the). In col. 34 lines 42-45, the

home agent is a registered agent for the mobile device, and in col. 35 lines 55-59 the

communication between the home agent and the foreign agent uses ICMP protocol i.e.

control packet. Thus, using the control packet (ICMP protocol) for registration is

inherent feature.

Regarding claim 23, *La Porta* discloses the first node stores destination information and the QoS information in a form of a table (see col. 6 lines 1-9).

Regarding claim 27, *La Porta* discloses an IP packet transferring method for allowing a plurality of terminals to communicate with each other via a mobile network, the IP packet transferring method comprising the steps of:

causing an IP node to which a first terminal is usually connected to generate, on receiving a first IP packet meant for the first terminal handed over, a second IP packet having an IP address of a destination of the first terminal substituted for an IP address of the first IP packet (see col. 5 lines 40-55);

causing the IP node to send the second IP packet to the destination via a path matching with a QoS class of the second IP packet (see col. 9 lines 17-20); and

causing the first terminal to report the destination to at least one of the IP node and a second terminal sent the first IP packet together with QoS information for setting a QoS class of the second IP packet (col. 5 lines 40-55).

Regarding claim 28, *La Porta* discloses the mobile terminal reports the destination and the QoS information to the first IP noted by using a packet for registration (the mobile IP requires registration of the care-of-address with the home agent, see col. 5 lines 46-49 and col. 9 lines 16-45; and the). In col. 34 lines 42-45, the home agent is a registered agent for the mobile device, and in col. 35 lines 55-59 the communication between the home agent and the foreign agent uses ICMP protocol i.e.

control packet. Thus, using the control packet (ICMP protocol) for registration is

inherent feature.

Regarding claim 29, *La Porta* discloses the IP node and the second terminal

each store destination information and the QoS information in a form of a table (see col.

6 lines 1-9).

Regarding claim 32, *La Porta* discloses when the first terminal is handed over,

the IP node generates the second IP packet having an IP address of the destination

substituted for an IP address assigned to the first terminal and sends the second IP

packet to the first terminal (col. 2 line 61 to col. 3 line 8).

Regarding claim 34, *La Porta* discloses a location registration server connected

to a mobile network for transferring IP packets to thereby allow a plurality of terminals,

which include a mobile terminal usually connected to the location registration server, to

communicate with each other, the location registration server comprising:

a processing device for encapsulating, on receiving an IP packet meant for the

mobile terminal handed over, the IP packet to thereby produce an encapsulated IP

packet and transferring the encapsulated IP packet to a destination of the mobile

terminal via a path particular to a QoS class to which the encapsulated IP packet

belongs (see col. 2 lines 61 to col. 3 lines 8; and col. 9 lines 16-20); and

a storage for storing destination information and QoS information, which is used

to set the QoS class of the encapsulated IP packet, received from the mobile terminal

handed over (table, see col. 6 lines 1-9).

Regarding claim 35, *La Porta* discloses when a plurality of destinations to which

the IP packet should be transferred exist, the processing device produces the

encapsulated IP packets corresponding in number to the plurality of destinations and

then sends the encapsulated IP packets (the home agent maintains a list of mobile

device address corresponding to mobile registered with the home agent, see col. 36

lines 39 to col. 37 line 8).

Regarding claim 36, *La Porta* discloses storage stores the destination information

and the QoS information in a form of a table (see col. 6 lines 1-9).

Regarding claim 40, *La Porta* a location registration server (home agent i.e.

node or router, see col. 5 lines 18-21) connected to a mobile network for transferring IP

packets to thereby allow a plurality of terminals, which include a mobile terminal usually

connected to the location registration server, to communicate with each other, the

location registration server comprising:

a processing device for generating, on receiving a first IP packet meant for the

mobile terminal handed over, a second IP packet having an IP address of a destination

of the mobile terminal substituted for an IP address of the first IP packet and sending

the second IP packet to the destination via a path particular to a QoS class of the

second IP packet (see col. 5 lines 40-55, and col. 9 lines 17-21); and

a storage for storing destination information and QoS information, which is used

to set a QoS class to which the second IP packet belongs, received from the mobile

terminal (col. 6 lines 1-9).

Regarding claim 42, *La Porta* storage stores the destination information and the

QoS information in a form of a table (see col. 6 lines 1-9).

Regarding claim 46, *La Porta* discloses a fixed terminal connected to a mobile

network for interchanging IP packets with a mobile terminal, the fixed terminal

comprising:

a processing device for replacing, when the mobile terminal is handed over, an

IP address assigned to a first IP packet sent to the mobile terminal with an IP address

indicative of a destination of the mobile terminal (see col. 5 lines 40 to col. 6 line 18),

and

sending the second IP packet to the destination via a path particular to a QoS

class of the second IP packet (see col. 9 lines 1-9); and

a storage for storing destination information and QoS information, which is used

to set a QoS class to which the second IP packet belongs, received from the mobile

terminal (see col. 6 lines 1-9).

Regarding claim 48, *La Porta* storage stores the destination information and the

QoS information in a form of a table (see col. 6 lines 1-9).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 4, 8, 10, 12, 14, 18, 20, 22, 24, 31, 33, 37, 41, 43, 47, 49 are rejected

under 35 U.S.C. 103(a) as being unpatentable over *La Porta* in view of *Leung* et al. (US

6,765,892), hereinafter *Leung*.

Regarding claims 4, 8, 10, 12, 14, 18, 20, 22, 24, 31, 32-33, 37, 41, 43, 47, 49,

La Porta fails to discloses when a plurality of destinations to which the IP packet should

be transferred exist, the processing device produces the IP packets corresponding in

number to the plurality of destinations and then sends the IP packets or the processing

device producing multicast packets and sending the multicast packets their destinations.

Leung, on the other hand, discloses the processing device producing multicast

packets and sending the multicast packets their destinations in mobile IP environment

(abstract).

Therefore, it would have been obvious to one having ordinary skill in the art at

the time of invention was made includes the teaching of *Leung* i.e. IP multicasting in

the system taught by *La Porta* in order to provides the system with IP multicasting

capability.

Allowable Subject Matter

Claims 5-6, 15-16, 25-26, 30, 38-39, 44-45, 50-51 are objected to as being

dependent upon a rejected base claim, but would be allowable if rewritten in

independent form including all of the limitations of the base claim and any intervening

claims.

Conclusion

Any response to this action should be mailed to:

The following address mail to be delivered by the United States Postal
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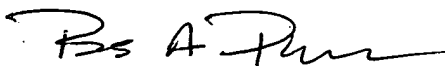Crystal Plaza Two, Lobby, Room 1B03
Arlington, VA 22202.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Bob A. Phunkulh** whose telephone number is **(571) 272-3083.** The examiner can normally be reached on Monday-Tursday from 8:00 A.M. to 5:00 P.M. (first week of the bi-week) and Monday-Friday (for second week of the bi-week).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor **Chau Nguyen**, can be reach on **(571) 272-3126.** The fax phone number for this group is **(571) 273-8300.**

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Bob A. Phunkulh   **BOB PHUNKULH**
Primary Examiner   **PRIMARY EXAMINER**
TC 2600
Art Unit 2661
August 22, 2005